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(Modified) PTO/SB/21 (6-98)

Approved for through 09/30/2000, OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

MAR 14 2002

Total Number of Pages in This Submission

Application Number 09/936,979

Filing Date September 18, 2001

First Named Inventor William Melvin

Group Art Unit Unassigned

Examiner Name Unassigned

Attorney Docket Number 1012-010300US

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- Express Abandonment Request
- Information Disclosure Statement
- Certified Copy of Priority Document(s)
- Response to Missing Parts/ Incomplete Application
- Response to Missing Parts under 37 CFR 1.52 or 1.53

- Assignment Papers (for an Application)
- Drawing(s)
- Licensing-related Papers
- Petition Routing Slip (PTO/SB/69) and Accompanying Petition
- Petition to Convert to a Provisional Application
- Power of Attorney, Revocation Change of Correspondence Address
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Please charge Deposit Account No. 50-0893 for any additional fees associated with this paper or during the pendency of this application, including any extensions of time for consideration of the documents enclosed.

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm  
or  
Individual name

Irene Pleasure, Reg. No. 45,506, Quine Intellectual Property Law Group P.C.

Signature

*Irene J. Pleasure*

Date

March 5, 2002

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Attorney Docket No. 1012-010300US  
Client Ref. No. SJK/FP5956610

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

William Melvin, *et al.*

Application No.: 09/936,979

Filed: September 18, 2001

For: ANTIBODIES SPECIFIC FOR  
CYP1B1

Examiner: Unassigned

Art Unit: 1645

INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR § 1.97 and  
§ 1.98

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Application No.: 09/936,979  
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As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Irene Pleasure  
Reg. No. 45,506

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| Substitute for form 1449A-B/PTO                  |  | Complete if Known      |                    |
| INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT |  | Application Number     | 09/936,979         |
| (use as many sheets as necessary)                |  | Filing Date            | September 18, 2001 |
|  |  | First Named Inventor   | William Melvin     |
|  |  | Group Art Unit         | Unassigned         |
|  |  | Examiner Name          | Unassigned         |
|  |  | Attorney Docket Number | 1012-010300US      |
|  |  | Date Submitted         | March 5, 2002      |

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**U.S. PATENT DOCUMENTS**

| Examiner Initials       | Cite No. | U.S. Patent Document |                      | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal |
|-------------------------|----------|----------------------|----------------------|---|--|---|
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**FOREIGN PATENT DOCUMENTS**

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|-------------------|----------|-------------------------|-----------|----------------------|---|--|---|---|
|                   |          | Office                  | Number    | Kind Code (if known) |   |  |   |   |
|                   | AA       | WO                      | 97/12246A |                      | University of Aberdeen                          | 04-03/97   |   |   |
|                   |          |                         |           |                      |   |  |   |   |

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.                                    |  |  |  |  |  |  | T |
|-------------------|----------|--|--|--|--|--|--|--|---|
|                   | AB       | <b>Bailey et al.</b> (1998) "Association of cytochrome P450 1B1 (CYP1B1)polymorphism with steroid receptor status in breast cancer" <i>Cancer Research</i> 58(22):5038-41.   |  |  |  |  |  |  |   |
| *                 | AC       | <b>Bhattacharyya et al.</b> (1995) "Identification of a Rat Adrenal Cytochrome P450 Active in Polycyclic Hydrocarbon Metabolism as Rat CYP1B1" <i>J.Biol. Chem.</i> , 270:11595-602.   |  |  |  |  |  |  |   |
| *                 | AD       | <b>Crespi et al.</b> (1997) "Development of a human lymphoblastoid cell line constitutively expressing human CYP1B1 cDNA: substrate specificity with model substrates and promutagens" <i>Mutagenesis</i> , 12(2):83-9.  |  |  |  |  |  |  |   |
|                   | AE       | <b>Duncan et al.</b> (1992) "A simple enzyme linked immunosorbent assay (ELISA) for the neuron-specific $\gamma$ isozyme of human enolase (NSE) using monoclonal antibodies raised against synthetic peptides corresponding to isozyme sequence differences." <i>J. Immunol. Meth.</i> 151:227-36. |  |  |  |  |  |  |   |
|                   | AF       | <b>Elston &amp; Ellis</b> (1991) "Pathological prognostic factors in breast cancer. I. The value of histological grade in breast cancer: experience from a large study with long-term follow-up." <i>Histopathology</i> , 19:403-410.  |  |  |  |  |  |  |   |
|                   | AG       | <b>Hakkola et al.</b> (1997) "Expression of CYP1B1 in human adult and fetal tissues and differential inducibility of CYP1B1 and CYP1A1 by Ah receptor ligands in human placenta and cultured cells." <i>Carinogenesis</i> 18:391-97.   |  |  |  |  |  |  |   |
|                   | AH       | <b>Hayes et al.</b> (1996) "17 beta-estradiol hydroxylation catalyzed by human cytochrome P450 1B1" <i>PNAS, USA</i> 93(18):9776-81.   |  |  |  |  |  |  |   |
|                   | AI       | <b>King et al.</b> (1997) "A highly sensitive detection method for immunohistochemistry using biotinylated tyramine." <i>J. Pathol.</i> 183:237-41.  |  |  |  |  |  |  |   |

|                    |  |                 |  |
|--------------------|--|-----------------|--|
| Examiner Signature |  | Date Considered |  |
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| Filing Date            | September 18, 2001 |
| First Named Inventor   | William Melvin     |
| Group Art Unit         | Unassigned         |
| Examiner Name          | Unassigned         |
| Attorney Docket Number | 1012-010300US      |
| Date Submitted         | March 5, 2002      |

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| AJ | <b>Liehr and Ricci</b> (1996) "4-hydroxylation of estrogens as markers of human mammary tumors" <i>PNAS, USA</i> 93(8):3294-6.   |
| AK | <b>McKay, J. et al.</b> (1995) "Expression of cytochrome P450 CYP1B1 in breast cancer" <i>FEBS Letters</i> , 374:270-2.  |
| AL | <b>Murray et al.</b> (1997) "Tumor-specific expression of cytochrome P450 CYP1B1". <i>Cancer Research</i> 57:3026-31.  |
| AM | <b>Murray et al.</b> (1998) "Matrix metalloproteinase-1 is associated with poor prognosis in esophageal cancer." <i>J. Pathol.</i> 185:256-61.   |
| AN | <b>Murray et al.</b> (1998) "Matrix metalloproteinases and their inhibitors in gastric cancer." <i>Gut</i> , 43:791-797.   |
| AO | <b>Savas et al.</b> (1994) "Mouse Cytochrome P-450EF, Representative of a New 1B Subfamily of Cytochrome P-450's" <i>J. Biol. Chem.</i> 269:14905-11.  |
| AP | <b>Savas et al.</b> (1997) "Biological Oxidation and P450 Reactions" <i>Arch. Biochem. Biophys.</i> , 347:181-92.  |
| AQ | <b>Schmidt &amp; Bradfield</b> (1996) "AH Receptor Signaling Pathways." <i>Annu. Rev. Cell Dev. Biol.</i> 12:55-89.  |
| AR | <b>Shen et al.</b> (1994) "cDNA Cloning, Sequence Analysis, and Induction by Aryl Hydrocarbons of a Murine Cytochrome P450 Gene, Cyb1b1." <i>DNA Cell Biol.</i> 13:763-9.  |
| AS | <b>Shimada et al.</b> (1996) "Activation of chemically diverse procarcinogens by human cytochrome P450 1B1" <i>Cancer Research</i> 56(13):2979-84.   |
| AT | <b>Sutter et al.</b> (1994) "Complete cDNA Sequence of a Human Dioxin-inducible mRNA Identifies a New Gene Subfamily of Cytochrome P450 That Maps to Chromosome 2." <i>J. Biol. Chem.</i> 269:13092-9.   |
| AU | <b>Tailor, G. et al.</b> (1998) "Detection of cytochrome P450 CYP1B1 in human tumors using monoclonal antibodies against a c-terminal decapeptide" <i>Human &amp; Experimental Toxicology</i> . Vol. 17, no. 9, pp. 534. Proceedings of the British Toxicology Society Annual Congress Guilford, England, UK April 19-22, 1998. <i>British Toxicological Society</i> , abstract. |
| AV | <b>Tang et al.</b> (1996) "Isolation and Characterization of the Human Cytochrome P450 CYP1B1 Gene." <i>J. Biol. Chem.</i> , 271:28324-30.   |
| AW | <b>Tang et al.</b> (1999) "Development of an antipeptide antibody that binds to the C-terminal region of human CYP1B1" <i>Drug Metabolism and Disposition</i> (1999 Feb) 27(2):274-80, abstract.   |
| AX | <b>Walker et al.</b> (1995) "Rat CYP1B1: an adrenal cytochrome P450 that exhibits sex-dependent expression in livers and kidneys of TCDD-treated animals." <i>Carcinogenesis</i> , 16:1319-27.   |
| AY | <b>Wang et al.</b> (1998) "Functional and physical interactions between the estrogen receptor Sp1 and nuclear aryl hydrocarbon receptor complexes." <i>Nucl. Acid. Res.</i> 26:3044-52.  |

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| Examiner<br>Signature |  | Date<br>Considered |  |
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